

Application No. 09/784,499
Attorney Docket No. 13055US01

REMARKS

The present application includes claims 1-31. Claims 1-31 were rejected. By this Amendment, claim 29 has been canceled and new claims 32-38 have been added.

Claims 1-26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Moy, U.S. Patent Application Publication No. 2003/0035411, in view of Sandstrom, U.S. Patent No. 6,697,373.

Claims 27, 28, 30, and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Moy in view of Graves, U.S. Patent No. 4,764,921.

Claim 29 was rejected under 35 U.S.C. §103(a) as being unpatentable over Moy in view of Graves and further in view of Chaudhuri, U.S. Patent Application Publication No. 2002/0018269.

We now turn to the rejection of claims 1-26 under 35 U.S.C. §103(a) as being unpatentable over Moy in view of Sandstrom. As further described below, neither Moy nor Sandstrom teach forming a connection without determining usage statistics for all of the switching circuits in a SONET communications network. As stated by the Examiner in the Office Action, Moy is silent with regard to the formation of virtual concatenated resources, as acknowledged by the Examiner. Additionally, as further discussed below, Sandstrom requires the usage statistics to be determined for all nodes on the SONET ring and then modifies all nodes on the SONET ring at the same time.

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Claims 1-26 include independent claims 1 and 14, both of which were previously amended to clearly recite that the connection modification command is formed by the network management system without determining usage statistics for all of the switching circuits in a SONET communication network. Consequently, claims 1 and 14 are respectfully submitted to be allowable as further discussed below, as are their dependent claims 2-13 and 15-26.

Turning now to Moy, Moy teaches service discovery using a user device interface to an optical transport network. As described beginning at paragraph [0007] of Moy, a user device interface to an Optical Transport Network (OTN) is provided. The interface enables dynamic provisioning of bandwidth of an OTN. However, as stated by the Examiner in the Office Action, Moy fails to disclose the reservation of virtual concatenated resources in modifying an existing connection.

Sandstrom teaches an automatic method for dynamically matching the capacities of connection in a SDH/SONET network combined with fair sharing of network resources. As shown in Figure 1 and described beginning at Col. 4, Line 28, a SONET ring, N/wk Ring 10, includes a number of packet terminals (PTs) 18. One of the PTs includes a Master Connection Controller (MCC) 20.

As shown in Figure 2 and described beginning at Col. 4, Line 37, each PT 18 includes an access interface 36 for providing access outside the ring, as well as a N/wk Ring interface east 21 and a N/wk Ring interface east 23 for sending data around the ring. Additionally, each PT 18 includes packet source buffer 33. Specifically, as described

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beginning at Col. 6, Line 42, each PT 18 includes a dedicated packet source buffer 33 for each for each of the remote PTs on the N/wk ring 10. Each packet source buffer 33 collects all the packets received by the PT 18 that are destined for the remote PT for which the packet source buffer is dedicated.

As described beginning at Col. 5, Line 24, the MCC 20 provides for dynamic adjustment of the capacity of the connections between the PTs 18. More specifically, starting at Col. 5, Line 63, the MCC 20 provides for dynamic adjustment of the capacity of the connections between the PTs 18 by collecting usage statistics for all of the packet source buffers 33 at all of the PTs 18 on the ring at one time, calculating a desired allocation of access and transport capacity to form a cross-connect map (CM) for each PT on the N/wk Ring 10, and then transmitting the CM to each PT on the N/wk ring 10. Each of the PTs on the ring then adjusts its connections in response to the CM.

That is, Sandstrom teaches modifying virtual concatenated paths in response to usage statistics for all of the PTs in the SONET communication network. Also, Sandstrom teaches modifying all virtual concatenated paths in the SONET communication network at one time.

We now turn to the rejection of claims 27, 28, 30, and 31 under 35 U.S.C. §103(a) as being unpatentable over Moy in view of Graves. As stated by the Examiner in the Office Action, Moy does not teach a virtual tributary communication connection and also

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does not teach modifying a virtual tributary communication connection to become a virtually concatenated virtual tributary communication connection.

Graves teaches a method for multiplexing signals. The Examiner points to Figure 5 and Col. 2, Lines 51-65, but the indicated sections only provide a generalized discussion of multiplexing signals, and does not teach specific implementation in a SONET network or using add/drop multiplexers. More specifically, Graves does not teach "forming a virtual tributary communication connection between said first add/drop multiplexer and said second add/drop multiplexer in response to a command from a network management system," as recited in claim 27, for example.

Thus, neither Moy nor Graves teaches forming a virtual tributary communication connection between a first add/drop multiplexer and a second add/drop multiplexer in response to a command from a network management system. The Examiner specifically states in the Office Action that the teaching is absent from Moy and Graves does not provide any teaching of implementation with add/drop multiplexers.

This limitation appears in all of claims 27, 28, 30, and 31. Consequently, claims 27, 28, 30, and 31 are respectfully submitted to be allowable.

We now turn to the rejection of claim 29 under 35 U.S.C. §103(a) as being unpatentable over Moy in view of Graves and further in view of Chaudhuri. Claim 29 has been canceled to reduce the number of issues for consideration by the Examiner in the present application.

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New claims 32-38 recite a SONET in communication with a digital cross-connect.
The digital cross-connect is also in communication with a network management system.
Claim 32 further specifies specific steps taken to establish connection which are believed
to be absent from the prior art.

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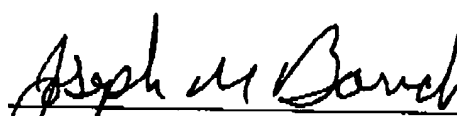
CONCLUSION

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

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Joseph M. Barich
Registration No. 42,291

McANDREWS, HELD & MALLOY, LTD.
500 West Madison Street, 34th Floor
Chicago, IL 60661

Telephone: (312) 775-8000
Facsimile: (312) 775-8100